

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image capture and processing integrated circuit comprising:
 - an image sensor including a plurality of sensor columns for capturing an image;
 - a plurality of analogue-to-digital converters (ADC's) that are connected to the image sensor to convert analogue signals generated by the image sensor into digital signals;
 - image processing circuitry that is connected to the ADC's to carry out image processing operations on the digital signals;
 - a print head interface that is connected to the image processing circuitry to receive data from the image processing circuitry and to format that data for a printhead; and
 - a high current drive transistor configured to drive a capping solenoid of the printhead, wherein the high current drive transistor is driven when the image sensor is not in use so as to avoid effecting the captured image via a voltage fluctuation in the image capture and processing integrated circuit;
 - wherein the integrated circuit defines a CMOS active pixel sensor array, and wherein the integrated circuit incorporates a plurality of analog signal processors, each analog signal processor being dedicated to process one or more signals generated by a respective one of the plurality of sensor columns, wherein the a—plurality of analog signal processors are configured to carry out enhancement processes on analog signals generated by the active pixel sensor array.
2. (Previously Presented) An image capture and processing integrated circuit as claimed in claim 1, which includes a memory device that is interposed between the image sensor and the image processing circuitry to store data relating to an image sensed by the image sensor integrated circuit.
3. - 4. (Canceled)
5. (Previously Presented) An image capture and processing integrated circuit as claimed in claim 1, in which the image processing circuitry includes color interpolation circuitry to interpolate pixel data.

6. (Previously Presented) An image capture and processing integrated circuit as claimed in claim 1, in which the image processing circuitry includes convolver circuitry that is configured to apply a convolution process to the image data.
7. (Previously Presented) An image capture and processing integrated circuit as claimed in claim 1, in which the print head interface is configured to format the data correctly for a pagewidth printhead.
8. (Previously Presented) An image capture and processing integrated circuit as claimed in claim 1, which is a single integrated circuit.
9. (Previously Presented) A camera system which includes the image capture and processing integrated circuit as claimed in claim 1.